

ABSTRACT

An apparatus for maximum work comprising central equipment comprising a refrigeration machine, a water heater, an evaporative cooler and hot and cold storage tanks. Airside equipment for providing supply air to a room or zone. A hot supply/return pipe, a cold supply pipe, and a cold return pipe. A water blending circuit comprising a hot supply runout pipe extending from the hot supply/return pipe and a cold supply runout pipe extending from the cold supply pipe, wherein the water blending circuit further comprises an upstream two position three way changeover valve comprising a first port, a second port, and a third port. The hot supply runout pipe connects to first port and the cold supply runout pipe connects to the second port. A modulating three way zone blending valve connected to the third port of the upstream two position three way valve, and a blending pump for pumping water through a roomside coil, so that return water exits the coil through a return pipe. A zone thermostat positioned to sense a temperature of the zone, and a return water thermostat to sense a temperature of the coil return water, the return water thermostat for controlling the temperature and amount of coil return water that is re-pumped through the coil by controlling the amount that the modulating three way zone blending valve is open or closed to the flow of coil return water, with a downstream two position three way changeover valve for directing the flow of return water.